

⑫ Int. Cl.

G 06 F 3/033

識別記号

3 4 0 C

庁内整理番号

8323-5B

⑬ 公開 平成4年(1992)5月26日

審査請求 未請求 請求項の数 4 (全3頁)

⑭ 発明の名称 マウス内蔵型情報処理装置

⑮ 特 願 平2-276246

⑯ 出 願 平2(1990)10月17日

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明 細 書

1. 発明の名称

マウス内蔵型情報処理装置

2. 特許請求の範囲

1. パーソナル・コンピュータ等の電子機器において、

その入力装置として用いられるマウス装置は、マウス本体をその接続先機器の本体内に内蔵、あるいは、付設したことを特徴とするマウス内蔵型情報処理装置。

2. 請求項1において、マウス装置の使用時には、本体内に内蔵、あるいは、本体に付設したマウスを取り出す、又は外して使用に供するマウス内蔵型情報処理装置。

3. 請求項1において、前記マウス装置の未使用時には、マウスを本体内に内蔵、あるいは本体に付設させるマウス内蔵型情報処理装置。

4. 請求項1、2または3において、マウスがその接続先の本体とケーブルで接続されている場合、マウス未使用時にマウスを本体に収納ある

いは付設する際にケーブルもマウスと同様に本体に収納、あるいは、付設し、マウス使用時にマウスを本体から取り出す、あるいは外すと同時にケーブルも本体から取り出す、あるいは外せるマウス内蔵型情報処理装置。

3. 発明の詳細な説明

〔産業上の利用分野〕

本発明は、パーソナル・コンピュータ等の電子機器において、その入力装置として用いられるマウス装置の格納方式に関する。

〔従来の技術〕

従来のパーソナル・コンピュータ等の電子機器の入力装置として用いられるマウス装置は、例えば、日立パーソナル・ワークステーション2020シリーズのカタログに記載のように、その接続先機器の本体に接続した位置に設置され、使用されている。

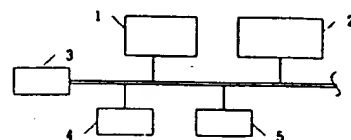
一方、従来のポータブル・パーソナル・コンピュータでは、その携帯性の確保・向上等の理由によりマウス装置は使用されてなく、例えば日立パ

(54) PATTERN REGISTERING AND READING METHOD

(11) 4-152415 (A) (43) 26.5.1992 (19) JP
 (21) Appl. No. 2-278223 (22) 17.10.1990
 (71) FUJITSU LTD (72) YOKO YAMASHITA
 (51) Int. Cl.⁵. G06F3/023, H03M11/04

PURPOSE: To register a new pattern without erasing a registered pattern by converting another pattern which is registered in a designated area in the same code into a code with which no pattern is registered and registering the converted code in the designated area.

CONSTITUTION: An operator defines the patterns of plural direct access storage devices DASD and divides these patterns into (3×3) minor patterns at a display part 4. Then the codes which are previously decided at a control part 3 are added to the minor patterns. At an input part 5, the recorded codes added to the minor patterns are converted into other codes with which the patterns are not registered yet by referencing to a pattern table 1. Then the DASD patterns are registered into the table 1 with the use of the converted codes. Thus it is possible to produce a code conversion table 2 where the unconverted codes are recorded while making the code before conversion face with the code after conversion without erasing the registered patterns.



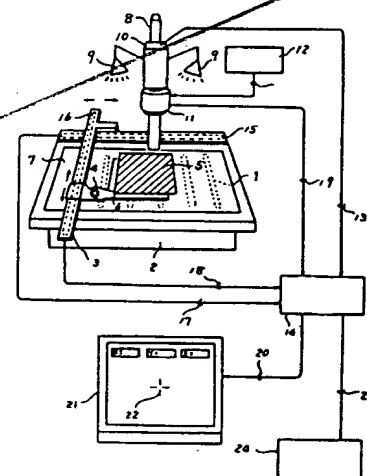
2: code conversion table, 5: input part

(54) IMAGE INPUT DEVICE

(11) 4-152416 (A) (43) 26.5.1992 (19) JP
 (21) Appl. No. 2-276219 (22) 17.10.1990
 (71) HITACHI LTD(1) (72) CHIHARU TAKAYAMA(2)
 (51) Int. Cl.⁵. G06F3/03, G06K11/06

PURPOSE: To simultaneously refer to the image information and the position information and to improve the workability of an image input device by using a general-purpose drawing set to an XY axis shift table, a video camera to the image input device, and an electric zoom lens to viewfield angle varying device respectively.

CONSTITUTION: The movable grip 4 of an XY drawing set 3 can be manually moved in the XY direction. Then the set 3 photographs the desired area of a substrate 5 with a video camera 10 and inputs a converted video signal 13 to a superimposer 14. At the same time, the set 3 inputs the pulse signals 17 and 18 which increase/decrease in accordance with the XY shift extent to the superimposer 14. Then an electric zoom lens 11 inputs a pulse signal 19 which is increased/decreased in response to the viewfield angle varying extent of the lens 11. The superimposer 14 converts the signals 17 and 18 into the coordinate data and the signal 19 into the magnification data respectively and produces a font signal. This font signal and the signal 13 given from the camera 10 are turned into a combined signal 20. Then the signal 20 is inputted to a monitor 21 and displayed there. Thus an operator can know the image and the position of the substrate 5 in photographing.



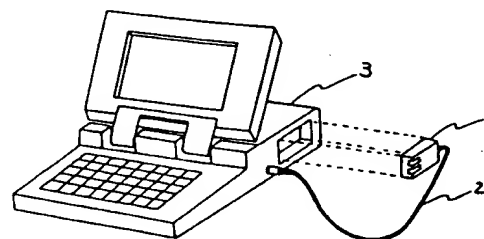
12: zoom controller, 24: computer

(54) INFORMATION PROCESSOR INCORPORATING MOUSE

(11) 4-152417 (A) (43) 26.5.1992 (19) JP
 (21) Appl. No. 2-276246 (22) 17.10.1990
 (71) HITACHI LTD (72) MASATAKA YOSHINO(3)
 (51) Int. Cl.⁵. G06F3/033

PURPOSE: To attain the application of a mouse device without damaging its portability by incorporating/attaching the mouse device into/to the main body of a portable personal computer, etc., when the mouse device is not used.

CONSTITUTION: The main body of a portable personal computer 3 is provided with a housing hole or recessed part for a mouse 1. Then the mouse 1 is housed in the hole or the recessed part when it is not used and then taken out for application. A connection cable 2 which secures the connection between the mouse 1 and the computer 3 is housed in the main body of the computer 3 as the mouse 1 is stored and taken out. The cable 2 can be omitted for a wireless mouse. Thus a mouse device can be applied without damaging the portability of the computer 3.



Translation of Japanese Laid-Open Patent Application No. 4-152417
Information Processor Incorporating Mouse
Publication date: May.26, 1992

SPECIFICATION

1. TITLE OF THE INVENTION

Information Processor Incorporating Mouse

2. CLAIMS

Claim 1. An information processor incorporating mouse among electronic apparatuses such as a personal computer, wherein the mouse body of a mouse apparatus used as an input device is incorporated or additionally provided to the body of the connected apparatus.

Claim 2. The information processor incorporating mouse as claimed in claim 1, wherein the mouse incorporated in the body or additionally provided to the body is taken out or removed therefrom when the mouse is requested to be used.

Claim 3. The information processor incorporating mouse as claimed in claim 1, wherein the mouse is incorporated to or additionally provided to the body when the mouse is not used.

Claim 4. The information processor incorporating mouse as claimed in claim 1, 2 or 3, wherein a cable is also accommodated or additionally provided to the body like the mouse when it is accommodated or additionally provided to the body when it is not used in such a case that the mouse is connected to the body with a cable and the cable can also be taken out or removed from the body simultaneously with the mouse when it is taken out or removed from the body for the use thereof.

3. DETAILED DESCRIPTION OF THE INVENTION

[Industrial Field of Utilization]

The present invention relates to a method of storing a mouse apparatus used as an input device of an electronic apparatus such as a personal computer.

[Related Art]

A mouse apparatus used as an input device of an electronic apparatus such as a personal computer of the related art is provided for use at the position connected to the body of the connected apparatus as described in the catalog of Hitachi personal work station 2020 series.

On the other hand, a mouse apparatus has not been used in the portable personal computer of the related art in order to assure and improve the portability of the computer and it has been used, for example, only with input of data from a keyboard as is described in the catalog of a Hitachi personal computer B16/LX.

[Problems to be Solved by the Invention]

The mouse apparatus of the related art does not result in less problems for the electronic apparatus such as a desk-top type personal computer because the mouse itself is structured as an independent device of the body to be connected but it has been difficult for the portable type personal computer to use a mouse apparatus in order to assure and improve portability.

It is therefore an object of the present invention to enable use of the mouse apparatus by accommodating or additionally providing the mouse to the connected body such as a portable type personal computer which is required to assure the portability without deteriorating its portability.

[Means for Solving the Problems]

In view of attaining the object explained above, a mouse and a connecting cable are incorporated or additionally provided to the body of a portable type personal computer in the present invention. When a mouse is to be used, the mouse and connecting cable incorporated or additionally provided to the body are taken out for use.

Moreover, when the mouse apparatus is not used, the mouse and connecting cable are accommodated or additionally provided to the body in order to improve portability and space efficiency.

[Operation]

When the mouse apparatus is not used, the mouse and connecting cable are incorporated or additionally provided to the body of apparatus, for example, a portable personal computer as the connected apparatus, not resulting in the difference from the portable personal computer of the related art.

When the mouse apparatus is to be used, the mouse apparatus can be manipulated by taking out the mouse and connecting cable from the body.

[Embodiment]

A preferred embodiment of the present invention will be explained with reference to Fig. 1 and Fig. 2.

Fig. 1 is a perspective view of a mouse incorporating portable personal computer as an embodiment of the present invention. In Fig. 1, numeral 1 designates a mouse; 2, a connecting cable and 3, a portable personal computer body.

The embodiment shown in Fig. 1 is an example where the mouse is incorporated to the body of the portable personal computer. As shown in this figure, the body of the portable personal computer 3 is provided with a hole or recess to accommodate the mouse. When the mouse is not used, the mouse is accommodated in this hole or recess and when the mouse is to be used, it is taken out or removed from the hole for use. The hole or recess for accommodating the mouse may be located at any position of each right or left side surface, front surface, rear surface, upper surface or bottom surface. Moreover, the connecting cable 2 connecting the mouse 3 and portable personal computer body may also be accommodated to

the body 3 or taken out from the body 3 simultaneously with the dealing of the mouse 1. In addition, when a wireless mouse not connected by a cable is used, this problem can be eliminated.

With introduction of such structure, the mouse can be accommodated to or taken out from the portable personal computer without deteriorating portability of the portable personal computer. When the mouse is to be used, it is taken out or removed from the body. [Effect of the Invention]

According to the present invention, a mouse used as an input device of a personal computer, etc. and a connecting cable are accommodated or additionally provided to the portable personal computer body and these are taken out only when these are to be used and otherwise these are removed from the body to assure excellent portability of the mouse apparatus without deteriorating portability of portable personal apparatus.

4. BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a mouse incorporating portable personal computer as an embodiment of the present invention. Fig. 2 is a block diagram of internal structure of an information processing apparatus as an object of the present invention.

- 1.Mouse; 2.....Connecting cable;
- 3.....Portable personal computer;
- 10....Central processing unit; 11.....Main memory;
- 12....I/O controller; 13.....Floppy disk controller;
- 14....Display controller; 15.....Mouse;
- 16....Keyboard, printer; 17.....Floppy disk.